YAMAHA commercial audio

M7CL
Quick Start Guide

A guide for people using M7CL in the real world.

Part 3

Guide to scenes; Recall Safe, Focus, storing, scene management, saving and loading.

This guide is for people about to use the M7CL with multiple scenes for the first time and for users who wish to transfer their console set ups to different M7CLs using a USB storage device or Yamaha Studio Manager Software. Please also refer to the M7CL owner's manual.

Version 1.0

Centralogic ™

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Scene management and other memorized features.

M7CL can memorize all of its mixing parameters such as EQ, dynamics and fader levels. These memories are stored into a “snapshot” or “scene”. The analog equivalent is “marking up” the desk on the familiar printed sheets of circles. This “scene” represents the best positions for all the parameters at that particular point in time. If soundcheck and rehearsal time allow, it is possible to create a scene snapshot for each song or act of the performance, including the preshow walk-in music and end show exit music and scenes for each support act too.

However never forget that live show mixing is a dynamic activity and that a series of scene recalls cannot always cope with the unexpected performance change or react to the change in room acoustics due to the audience. This guide explains how to take advantage of the scene snapshot system, whilst using the recall safe and recall focus functions to maintain flexibility and keep dynamically mixing your show.

In addition to scene information M7CL also remembers handy libraries of parameter information like the EQ, GEQ and dynamics libraries and set up features like patch information, user defined key and other preferences. Together all these memories add up to be a “session” or “console” file and these files can easily be copied to another console using a USB storage device or Yamaha Studio Manager. M7CL can only contain a single “console” or “session” file, but by connecting a PC running Studio Manager and M7CL Editor software, scenes can be extracted from one session and merged into another.

The SCENE LIST screen.

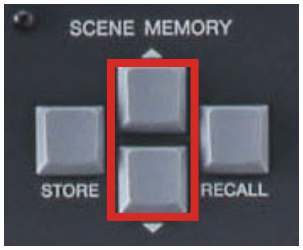
M7CL can store 300 scene memories or snapshots. In addition to the 300 numbered memories there is the default read only Scene 000 and also the ‘current console settings’ which are either the same as a scene or an edited version of a scene. These are in a special memory buffer which is also retained in case of power failure.

To see the SCENE LIST, press the SCENE field area of the screen.

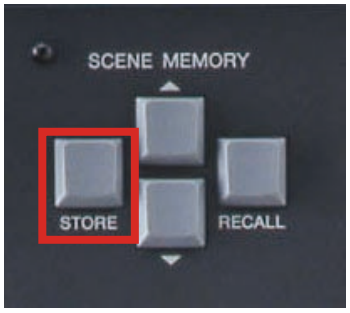
Scene 000 is read only. When it is edited the yellow E appears. You cannot save to Scene 000.

How to store a scene.

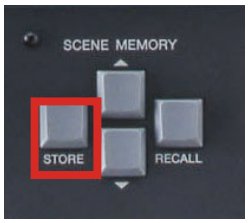
When the console parameters are edited to a position you want to keep, press the [SCENE MEMORY] up/down key to choose a numbered location for the new scene. The chosen number will flash. It is not necessary to be displaying the SCENE LIST; you can do this at any time.

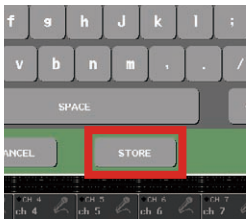


Next press the [STORE] key and the SCENE STORE keyboard pop-up will appear. This lets you name the scene and provides extra space for a comment or longer scene name. If you store to a location containing a previously stored scene, this scene will be lost. (But see “Undo options” section.) Scenes can be locked against this but generally be careful to choose a vacant scene location to avoid over-writing a valuable scene.



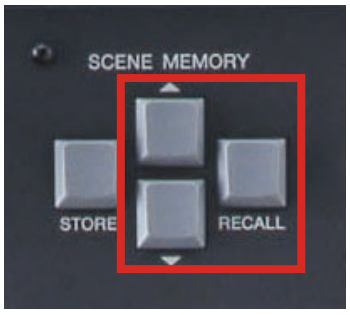
Clear the existing name (initial data) with the [CLEAR] button. Enter a scene name and a comment if wanted. The scene is always given an automatic time stamp when it is created and this appears in the SCENE LIST.





Press the [STORE] button (on screen) or the [STORE] key (on desk), then [OK] on the confirmation box and the scene is stored. The scene number shows in the Function Access Area and the E goes out until another desk change is made.
For really fast scene storing you can disable the confirmation in SETUP preferences. Now a simple double press on the [STORE] key will store using the current scene name. You can update the scene names later.

How to recall a scene.



To recall a scene, use the up/down keys to find its number and then press the [RECALL] key. The desk will reset itself to the chosen scene. You cannot recall “empty scenes” with no data stored in them. If you want to start from a fresh clean desk, choose Scene 000.

Undo options.

If after storing or recalling a scene you realize that you have made a mistake; perhaps you recall a scene with all channels muted, or over-write an important scene, there is one step of “undo”. You can access this from the SCENE LIST. The “undo” remains until you next store or recall. User defined keys can be programmed to do “undo store” or “undo recall” functions directly.

Managing the SCENE LIST.

Scenes appear in the list next to a position number. Above the list are [CUT], [COPY], [PASTE], and [INSERT] option buttons so that you can re-order the scene list. This also lets you clear un-used scenes. It is important to realize that the scene number that you stored the scene into is only a location and not part of the scene name. If you cut and paste scenes they will change number.

There is an [UNDO] button for the scene management options, but this is only for one action back.

Editing scenes.

Scene information can be edited by recalling the scene, making the required changes and then restoring to the same location. Alternatively the session or scene can be opened in Studio Manager M7CL Editor and changes made on an offline PC.
Scenes can be locked from being over-written by pressing the grey square in the padlock icon column. Scene 000 is read only and cannot be over-written.

Limiting the effects of scene recall.

Scene recall is an extremely powerful function to help the sound engineer make many rapid changes to the console between songs or scenes. However there are many circumstances when the engineer needs some changes but does not want to implement other changes. M7CL has two different solutions to this limiting of scene recall; Recall Safe and Focus.

Recall Safe and Focus.

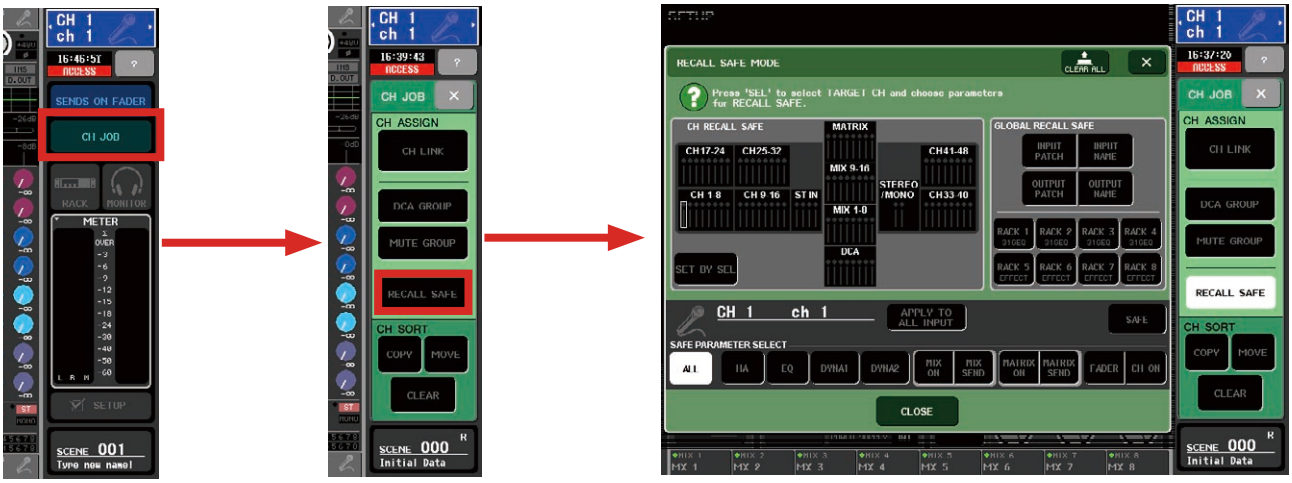
When a scene is stored, all the parameters of all the channels are memorized, regardless of the consoles settings, but when a scene is recalled with Recall Safe or Focus settings applied, the specific parameters of channels to be recalled are limited by those settings, and the parameters remain unchanged by the recall. Recall Safe can be applied to a whole channel or as Partial Recall Safe be applied to individual parameters.
Recall Safe affects the parameter in all scenes but Focus affects the parameter only when that specific scene is recalled.

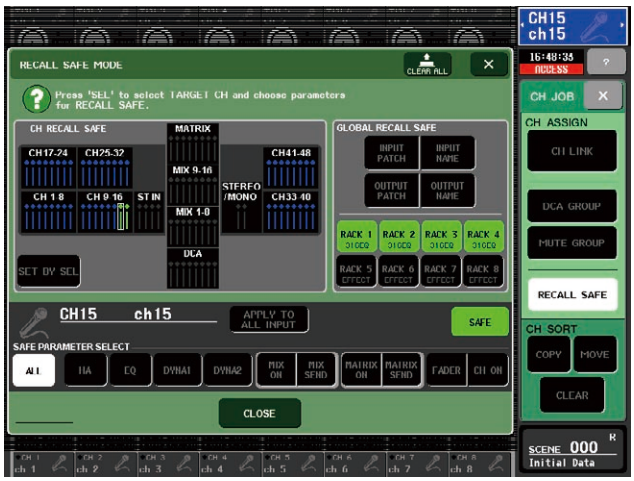
Recall Safe; typical use examples.

1. If a special channel is added to an existing show made up of many scenes. This might be a presenters' mic or safety announcement mic. Each time a scene is recalled this mic channel will "disappear" because it is not part of the newly recalled scene. By placing the mic channel in "Recall Safe" the scene recall does not affect that channel and the mic will stay as before the scene recall.
2. Another common example is when using a scene for every song in a bands set. During the first song the engineer improves the sound of the bass drum by altering the EQ. When the second song starts the bass drum EQ is recalled with the original EQ and the engineer must repeat their alterations. This workload accumulates throughout the set as more channels are altered. By using "Partial Recall Safe" just the EQ of those channels can be removed from scene recall so that it remains unchanged even when the fader level, sends, on/off etc is being changed.
3. GEQ and rack settings can be recall safed. This is quite desirable so that any system or monitor GEQ applied in song one, is not undone when song two starts.

To apply Recall Safes.

The RECALL SAFE MODE pop-up is in the CH JOB (Channel Job) area. Press the [CH JOB] button on the screen and then press the [RECALL SAFE] button, the pop-up will appear.





Recall Safes can be applied from this screen and the safe parameters can be selected.
To apply a safe, select the channel to display its setting in the lower part of the pop-up. Select the parameters to be safed (eg [ALL] or [HA] and [EQ]). Turn on the safe with the [SAFE] button. This setting can be applied to many channels quickly by using the [SET BY SEL] button in the box above.

Channels with all parameters safed are shown green. Channels with partial safes are shown blue. There are many possible partial safe combinations but all are shown in blue.

It is easy to create mute scenes by selecting all the buttons other than [CH ON] from the SAFE PARAMETER SELECT part of the RECALL SAFE MODE pop-up and applying this to all channels. In this case each scene will operate the channel ON/OFF parameter. Check to safe all the [RACK], [NAME] and [PATCH] boxes too.

Turning safes on and off.

Safes can be turned on and off from the SELECTED CHANNEL VIEW and there is also a short-cut to the RECALL SAFE MODE pop-up. If the safe is set to a partial setting this will be indicated here and the partial setting remains even when switched off.

Focus (or Recall Focus); typical use examples.

Focus is another way of limiting the amount of information that is recalled when the chosen scene is recalled.

1. **Multiband shows.** In a multiband line up show each engineer wants his own GEQ setting, but also they want changes to be possible without scene recall “undoing” them. Because Focus is available on a scene by scene basis this is possible. Use Focus to remove the [RACK] from recall in all scenes except the first scene of each bands set. Now the GEQ settings will change only when a new band starts.
2. **Patch Changes.** In a live recording set up it is required to have the mics connected to the channels of the scenes for recording, but for playback use the same scenes and have the recorder connected. By recalling a “record setup” scene the mics can be patched to the channels or by recalling a “playback setup” scene the recorder can be patched to the channels. Use Focus to remove the [IN PATCH] from scene recall for the actual scenes, but keep the [IN PATCH] within Focus for the two special “setup” scenes.

The FOCUS field can be accessed from the SCENE LIST screen by pressing the [FOCUS] tab below the list. It is important to understand that Focus differs from Recall Safe; Recall Safe is global to all scenes and Focus is specific to a particular scene. Also the selectable parameters are different.

How scene recall can be limited; a summary.

By Focus
Set and stored for each scene in the SCENE LIST.

[RACK]
- Effect preset and parameters, but not patching

[HA]
- Head amp, level, +48V, Φ

[IN PATCH]
- Input patching, insert patching, direct output patching, but not on/off

[OUT PATCH]
- Output patching, cascade patching

[IN]
- Input channel parameters; Name/icon, EQ+ATT, dynamics, mute and DCA group settings, on/off, pan/balance, fader.
- Insert and direct on/off

[OUT]
- Output channel parameters; EQ, dynamics, on/off, fader and the WITH SEND settings if pressed

[WITH SEND]
- ON/OFF and send level settings for MIX and MATRIX sends

By Recall Safe
Set for all scenes in the RECALL SAFE MODE pop-up.

GLOBAL RECALL SAFE
- Input patch, input name
- Output patch, output name
- Individual rack units 1 to 8

CH1-32 (or CH1-48)
- All parameters or partial safe menu of; HA, EQ+ATT, Dyn 1, Dyn 2, MIX on, MIX send, MATRIX on, MATRIX send, fader, on/off

STEREO/MASTER
- All parameters or partial safe menu of; EQ, Dyna, MATRIX on, MATRIX send, fader, on/off

MIX1-16
- All parameters or partial safe menu of; EQ, Dyna, MATRIX on, MATRIX send, fader, on/off
- WITH MIX SEND

MATRIX
- All parameters or partial safe menu of; EQ, Dyna, fader, on/off
- WITH MIX SEND

DCA
- All parameters or partial safe menu of; level/on

What is in a scene?

When a scene is stored it is useful to know what is included in the scene and can be changed by scene recall and what is not. However just because things are not remembered by scene recall doesn't mean they are not remembered at power down or are not included in the whole console file.
These text boxes should make it clear what is stored in scene memory and what is not.

Included in scene recall

- **Head amp** (level, +48V, Φ)
- **Ext head amp** (port, level, +48V)
- **Scene comment, time stamp**
- **Name/icon**
- **Patch/routing** (Input, Output, Insert, Direct, Monitor, Cascade, Rack)
- **Insert** (on/off, position)
- **Direct out** (on/off, position, level)
- **EQ** (all parameters inc HPF)
- **ATT** (digital attenuator)
- **Dynamics 1** (all parameters)
- **Dynamics 2** (all parameters)
- **MATRIX sends** (bus setup, on/off, level, pre/post, pan)
- **MIX sends** (bus setup, on/off, level, pre/post, pan)
- **Pan/balance** (Position Stereo/Mono/LCR)
- **DCA** (assignment, level, mute)
- **Mute group** (assignment, on/off)
- **Faders and on/off**
- **Rack** (all parameters)
- **Rear panel input to talkback routing** (and levels in MONITOR screen)
- **Focus**
- **Cross fade** (on, time)
- **Channel link settings**
- **TO STEREO/MONO** (on, pre/post)
- **Cascade patching**

Not included in scene recall
but still remembered for all scenes.

- **User defined keys**
- **Preferences**
- **Brightness controls**
- **OUTPORT delay and level settings**
- **MIDI setup**
- **Word clock**
- **Master +48V**
- **CUE pop-up** (PFL trim inputs, DCA trim, PFL trim outputs)
- **MONITOR pop-up** (levels, source on/off, mono, link)
- **Oscillator** (all parameters)
- **Safe assignments** (mute, recall)
- **Passwords/admin/guest settings**
- **Screen page or pop-up**
- **Sends on fader selected**
- **Metering point selection**
- **External HA to slot assignment and HPF**
- **User access level**
- **Network settings**
- **Clock**
- **Slots and MY card settings**
- **User libraries**
  - **EQ/HPF** (user and ROM)
  - **Dynamics** (not key-in) (user and ROM)
  - **GEQ** (user only)
  - **Effects** (user and ROM)

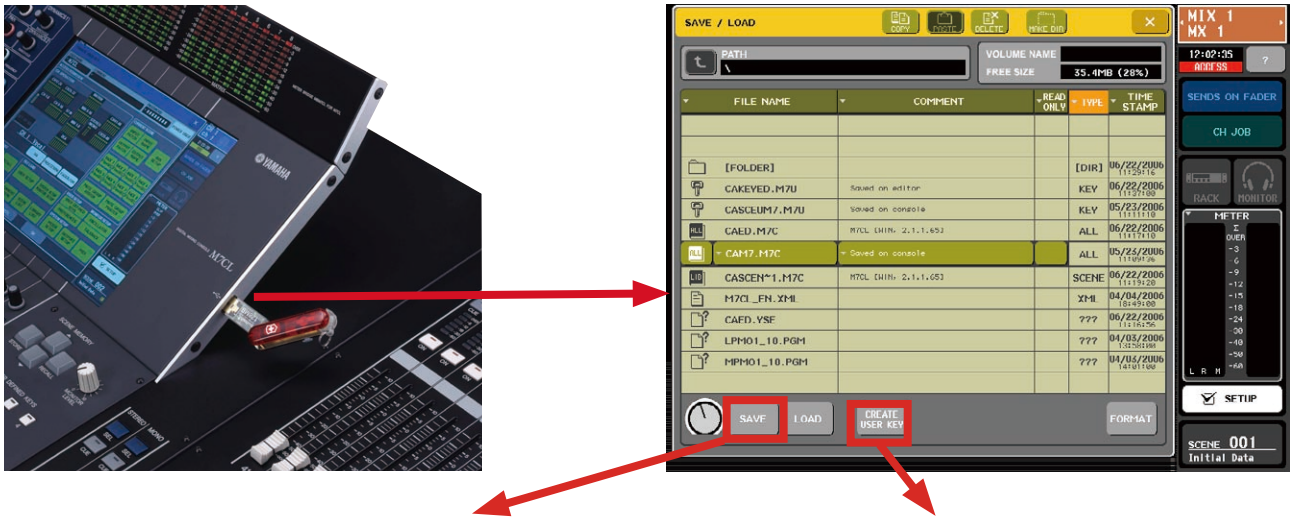
Saving and loading data.

Storing and recalling operations relate to scenes within a console file. Saving and loading relate to adding or copying files from the console. The console file is made up of various libraries but these are all linked together so that they can all be saved or loaded together in one easy file. These files are common to both the M7CL-32 and M7CL-48, but no other console.
In addition to the scene memory (including the patch scenes) the console also remembers the various console settings and preferences not included in the scenes.
All this information can be backed up to a simple USB storage device.

Yamaha does not make and sell the USB storage devices, but these are widely available from computer and electronics stores and from many manufacturers. When choosing a storage device remember that; M7CL is USB1.1, so both USB1.1 and USB2.0 will work. Storage capacity must not exceed 2GB. The drive can be formatted to FAT12 FAT16 or FAT32 but must not be partitioned. You can format a new drive in M7CL, but remember formatting an old drive erases all its memories. The same key will work with LS9 consoles but the files are not transferable.

Saving data to a USB storage device.

The scenes and set up of an M7CL console can be stored to an external USB storage device. This serves to back up the console's internal memory and allow transfer of the data to another console in another territory. Files made on either the 32-channel or 48-channel version will open in the other version.
Simply inserting a USB storage device will open the SAVE / LOAD pop-up screen.
If your stick is already connected then you can access the SAVE / LOAD pop-up from the [SETUP] button in the Function Access Area and then press the [SAVE/LOAD] button.



Pressing the [SAVE] button will result in an ALL DATA save. The text box explains what is included in that data file.

Saved on USB storage device as ALL DATA file
All the scene data from the above list for all the scenes.

- **The current scene** (the scene in use at the time of save).
- **External HA to slot assignment**
- **Safe assignments**
- **Work clock settings**
- **CUE pop-up settings** (PFL trim inputs, DCA trim, PFL trim outputs)
- **MONITOR pop-up settings** (levels, source on/off, mono, link)
- **Metering point selection**
- **MIDI settings**
- **OUTPORT settings** (delay and level)
- **User libraries**
  - **EQ/HPF** (user and ROM)
  - **Dynamics** (not key-in) (user and ROM)
  - **GEQ** (user only)
  - **Effects** (user and ROM)
- **User access level for Administrator and Guest**
- **Preferences for Administrator and Guest**
- **User defined keys for Administrator and Guest**

You can also access the CREATE USER KEY pop-up from this page. In addition to Administrator-set user access privileges the key stores your preferences and user defined key settings. So it's a useful way to transfer user defined keys and preferences to another console when you are starting a new project.

Stored on user authentication key

- **User access level**
- **Preferences**
- **User defined keys**

Loading data to the console from a USB storage device.

When an ALL DATA file is loaded into a M7CL all the data in the console is over-written (except the few items like passwords in the text box below). Similarly if a LIB scenes-only file is loaded all existing scenes are over-written but setup data like user defined keys are retained. LIB files are discussed later.

Other memorized data.

Some things are memorized by the console but not included in the ALL DATA file. And some things are not memorized by the console at all.

Memorized at power down on the console but not in ALL DATA file

- **Passwords**
- **Screen page**
- **Brightness controls**
- **Network settings**
- **Clock** (time/date etc)

Not stored anywhere!

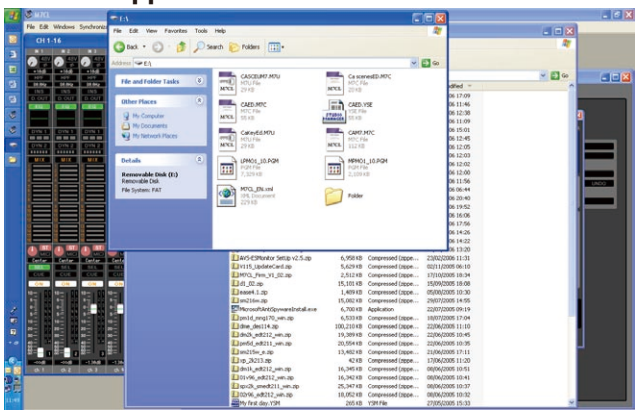
- **Screen page pop-up** (but can be bookmarked)
- **Talkback on**
- **Talkback dimmer on**
- **Cue on**
- **Osc on** (always off at power up)
- **Monitor dimmer on**
- **Console lock**
- **Monitor, talkback and headphone pots** (but shouldn't move in transit!)

Management of M7CL console files.

In the SAVE / LOAD pop-up, you can COPY, PASTE and DELETE items on your USB storage device, regardless of what kind of file they are. However, only certain kinds of file can be loaded into M7CL. Only ALL DATA and USER KEY files can be created on M7CL but Studio Manager M7CL Editor can save "scene-only" data. There are also firmware files and help menu files to recognize. See the guide below.

How files appear in M7CL.

How files appear in MS Windows.



M7CL files.

All.M7C: This is an ALL DATA console set-up file that includes all the information listed in the text box on page 9. All.M7C files can be created on either the console or the M7CL Editor and these files can be used for transferring data between consoles and editors.

User Key.M7U: This is the user authentication key that carries the user preference and access information listed on page 9. The user access privileges may be created, viewed and edited on the console or the editor, but only the console can view and edit the preferences and user defined keys.

LIB.M7C: This is a file of "scene-only" data created within the Studio Manager. It does not include other non-scene recallable data like user defined keys or EQ etc libraries.

Firmware.PGM files: There are two different .PGM files that make up the console firmware but these will self load at switch on. (With a confirm dialog pop-up) They cannot be loaded from the SAVE / LOAD pop-up.

M7CL_EN.XML: There are several different language help files available and these must be loaded from the SAVE / LOAD pop-up.

???.YSE: This is a Yamaha Studio Editor session file created and stored in the Editor software and it will not open in the console, only the editor.

New.M7C: Sessions saved on newer versions of Studio Manager appear as "New" on old console firmware. Update your firmware to access them.

Note; There are two types of .M7C files; ALL and LIB. An ALL DATA or USER KEY file created on Studio Manager will have the default settings for user defined keys until saved on a console with edited UDKs.

Scene management using Studio Manager and M7CL Editor.

Yamaha's Studio Manager is a host program to contain editors for various Yamaha products. It gets the "Studio" name as originally it was for the studio desks and digital keyboards. Yamaha Studio Manager is available for PC and Mac systems but currently there is no Mac version of the M7CL editor.
The M7CL editor can be used either ONLINE or OFFLINE, that is, either connected to a console or disconnected. Console files, stored on a USB storage device, can be opened with the Editor or files can be synchronized between the editor and a console via an EtherNet connection so that you can work on files currently being used by the console.
The Studio Manager host program, the M7CL editor and the DME-N Network driver are all available free from www.yamahaproaudio.com. There are guides on how to connect there as well.

Editing console files on the M7CL Editor.

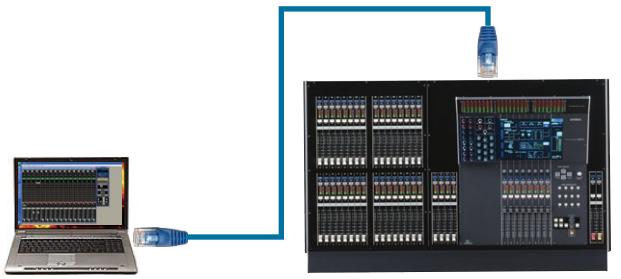
Console files, stored to a USB storage device can be opened using M7CL editor. Open a stored session with [File] > [Open Session...] and browse for the USB storage device in [My Computer]. Only .YSE files are displayed until you select [Console File] in the [Files of type] box below the file name box.
The Editor can be used to change most of the scene parameter data. Notably the Editor cannot be used for the items in the following text boxes.

Cannot be set by M7CL Editor
(but still saved in .M7C, .YSM or .YSE files)

- **User defined keys**
- **Preferences**
- **OUTPORT delay and level settings**
- **MIDI setup**
- **Word clock**
- **Master +48V**
- **CUE pop-up** (PFL trim inputs, DCA trim, PFL trim outputs)
- **MONITOR pop-up** (levels, source on/off, mono, link)
- **Oscillator (all parameters)**
- **Sends on fader selected**
- **User access level**

Cannot be set by M7CL Editor
(and not stored in .M7C, .YSM or .YSE files)

- **Network settings**
- **Clock (day/date etc)**
- **Passwords**
- **Brightness controls**

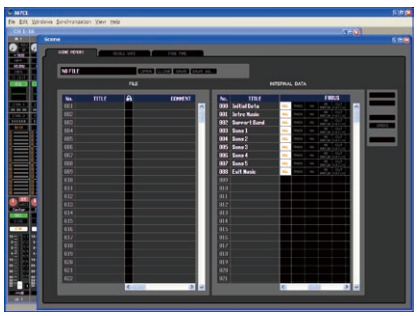


Online with M7CL Editor.

When connected via the Ethernet port and "online" the editor can control the M7CL console. Dragging the controls with the mouse will cause the mixer parameters, the screen images and faders to change and move. Please note that until the "RE SYNC" operation is completed the Editor and M7CL may not show the same settings. When "RE SYNC" is performed each parameter will be copied to the other device and it is important to make the correct decision when faced with the [Re-Synchronize] dialog box; [Console -> PC] or [PC -> Console].

Managing scenes with the Editor.

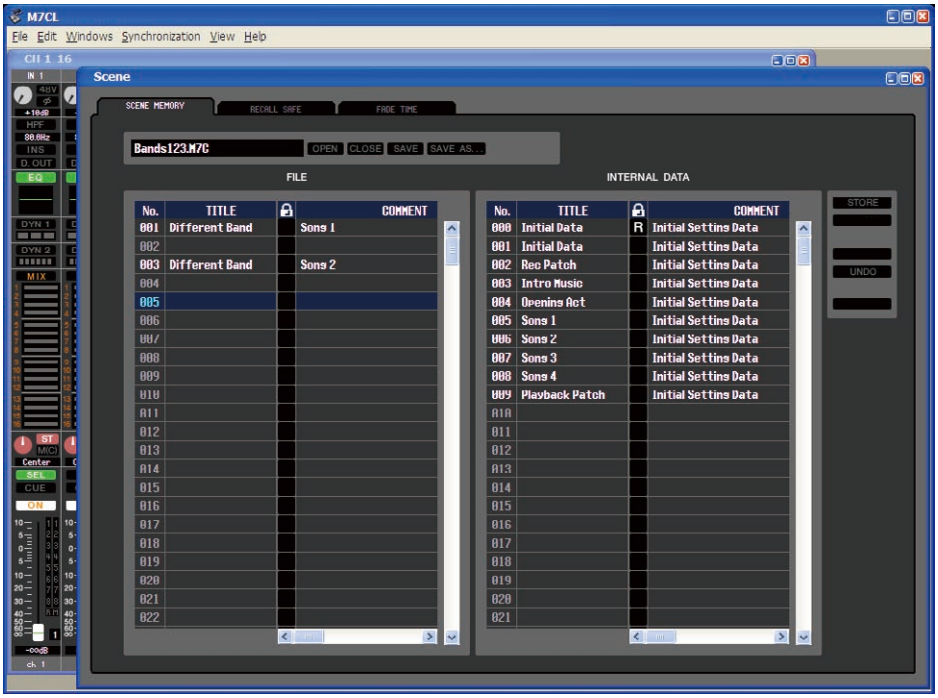
The Editor session is just like the console session in that it contains 300 scenes. Scenes can be stored and recalled from the Master window, and scenes can be viewed in the Scene window just like the console.



The Scene window:
FILE column on the left.
INTERNAL DATA column on the right.

Using the Scene window.

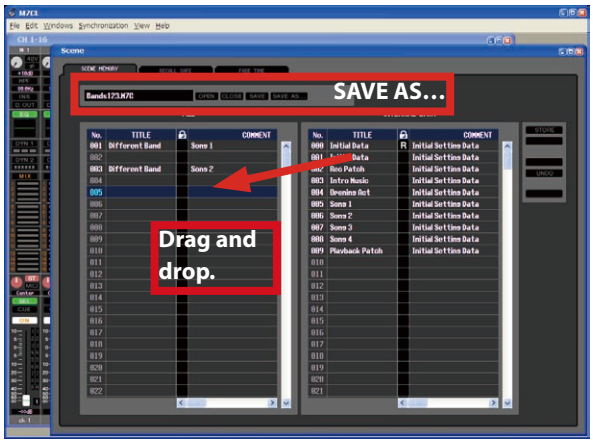
The Scene window shows two columns.
The right side column is headed “INTERNAL DATA” and the scenes listed in this column form part of an ALL DATA session file. They are available for editing on the software. If the editor is connected online with a console these scenes are the same as those shown in the console SCENE pop-up. Recalling one of these scenes displays it in the editor windows and recalls it to the console.
The left side column is headed “FILE” and the scenes listed in this column are “scenes-only”. They are not “wrapped” in an ALL DATA file. Once saved and transferred to a USB storage device, they appear as a LIB file in the console SAVE / LOAD pop-up.



To save the INTERNAL DATA scene list go to [File] > [Save Session...] and save to your computers memory. The file can be saved either as an .M7C file for transfer direct to a console via USB storage device or as a .YSE file for opening on the editor. .YSE files cannot be opened on a console but they have the very small advantage of remembering the layout of the windows when opened in the M7CL Editor.
To save the FILE list of scenes use the [SAVE AS...] button above the list. This will also have the file extension .M7C but it is not an ALL DATA file, just scenes. These will appear as a LIB file in the console SAVE / LOAD pop-up and can be opened into a console but always as a block of 300 scenes, so you will loose all scene data within the console. Note that the current scene is not over-written in this special case of LIB loading.

How to merge two sessions together.

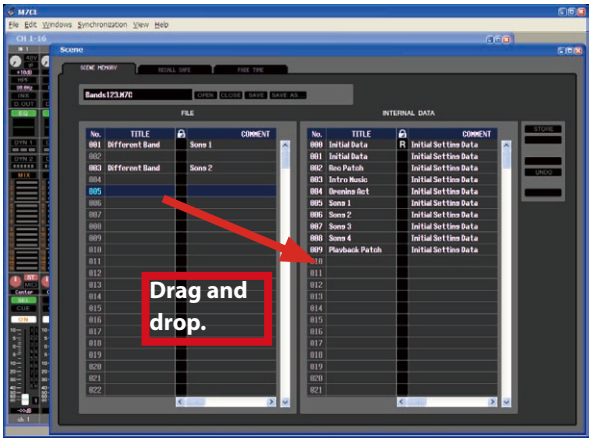
M7CL can only hold one session file at a time, but scenes from more than one session can be merged using the M7CL editor.
First choose the session that will provide the setup and user defined key information.
Take the other session file and open it into Studio Manager. The scenes will appear in the “INTERNAL DATA” column.



Drag and drop the scenes to the “FILE” column. Save the FILE column using the [SAVE AS...] button above the column. Use a name that makes clear this is a “scenes-only” file as the file extension will be .M7C just like a console file.

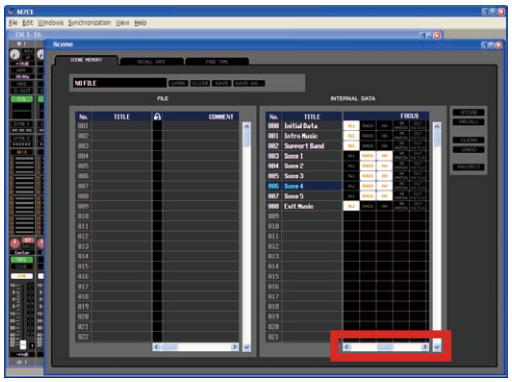
Next open the other session file and the scenes will appear in the “INTERNAL DATA” column. At the same time open the just saved “scenes-only” file into the “FILE” column.
Now scenes from the “FILE” side can be dragged and dropped into the “INTERNAL DATA” side and are ready for recall by the console if Studio Manager is online, or the “INTERNAL DATA” can be saved to a USB storage device and transferred to the console that way.
In this way, new scenes can be introduced to an existing session without loss of audio or interrupting the mix engineer.

Save Session as...



Using Focus and Recall Safe to ensure the outputs work as expected.

Careful use of the knowledge learned in this guide can ensure that outputs remain routed to the correct OMNI outputs and have the correct processing applied.
Focus can be set either from the scene window of the M7CL editor or the console. Use Focus to remove output patching from recall and if necessary output processing like EQ and dynamics. Don’t apply the [WITH SEND] button or the sends levels feeding into the outputs will also be removed from recall.
Additionally you might wish to safe any RACK GEQs from recall in the RECALL SAFE MODE pop-up if you wish to use the GEQ settings set by the engineer whose session you are merging into.
If Recall Safe and Focus cannot cope with the patching requirements and changes, remember you can always use the editor to create a new patch for your old scenes.



Good luck and enjoy mixing with scenes!

Revision History

Month / Year	Version	Contents
April 2007	1.0	First edition released.